I claim:

1. A method of treating a disease that results from a deficiency of a biological factor in a mammal wherein said method comprises administering Sertoli cells and a therapeutically effective amount of cells that produce said biological factor to a mammal in need of such treatment, wherein said Sertoli cells are administered in an amount effective to create an immunologically privileged site.

2. The method of Claim 1 wherein said mammal is a human.

3. The method of Claim 1 wherein said biological factor is a hormone.

4. The method of Claim 1 wherein said biological factor is insulin and said disease is diabetes mellitus.

5. The method of Claim 4 wherein said cells that produce said biological factor are pancreatic islet of Langerhans cells.

6. The method of Claim 1 wherein said cells that produce said biological factor are cells transformed by a nucleic acid encoding said biological factor.

7. The method of Claim 1 wherein said administering is by transplantation.

8. The method of Claim 1 wherein said Sertoli cells are administered in a dosage ranging from 10^5 to 10^{10} cells.

9. The method of Claim 1 wherein said cells that produce said biological factor are administered in a dosage of from 10^5 to 10^{10} cells.

10. The method of Claim 7 wherein said transplantation is by xenograft.

11. The method of Claim 7 wherein said transplantation is by allograft.

12. The method of Claim 1 which further comprises administering an immunosuppressive agent.

13. The method of Claim 12 wherein said immunosuppressive agent is administered for a time sufficient to permit said transplanted cells to be functional.

14. The method of Claim 12 wherein said immunosuppressive agent is cyclosporine.

15. The method of Claim 14 wherein said cyclosporine is administered at a dosage of from 5 to 40 mg/kg body wt.

16. The method of Claim 1 which further comprises administering a therapeutically effective amount of exogenous biological factor following the transplantation of said cells that produce said biological factor.

17. The method of Claim 1 wherein said cells that produce said biological factor are co-cultured with Sertoli cells in tissue culture.

18. The method of Claim 17 wherein said cells that produce said biological factor are cryopreserved prior to co-culturing with Sertoli cells in tissue culture.

19. A method of treating diabetes mellitus in a mammal wherein said method comprises administering to a diabetic mammal Sertoli cells in an amount effective to create an immunologically privileged site and a

therapeutically effective amount of pancreatic islet of Langerhans cells.

20. The method of Claim 19 wherein said diabetes mellitus is type I or type II.

21. The method of Claim 19 wherein said mammal is a human.

22. The method of Claim 19 wherein said Sertoli cells are human, bovine or porcine.

23. The method of Claim 19 wherein said pancreatic islet of Langerhans cells are human, bovine or porcine.

24. The method of Claim 19 wherein said administering is by transplantation.

25. The method of Claim 24 wherein said transplantation is by injection into the renal subcapsular space.

26. The method of Claim 24 wherein said transplantation is by injection into the subcutaneous facie.

27. The method of Claim 19 wherein said Sertoli cells are administered at a dosage ranging from 10^5 to 10^{10} cells.

28. The method of Claim 19 wherein said islet of Langerhans cells are administered at a dosage ranging from 5-1000 islet cells/g body wt.

29. The method of Claim 19 which further comprises the administration of an immunosuppressive agent.

30. The method of Claim 29 wherein said immunosuppressive agent is administered for a time sufficient to permit the transplanted islets to be functional.

31. The method of Claim 29 wherein said immunosuppressive agent is cyclosporine.

32. The method of Claim 31 wherein said cyclosporine is administered at a dosage of 5 to 40 mg/kg body wt.

33. The method of Claim 19 which further comprises administering a therapeutically effective amount of insulin following transplantation of said pancreatic islet of Langerhans cells.

34. A method of creating an immunologically privileged site in a mammal wherein said method comprises transplanting isolated Sertoli cells into a mammal.

35. The method of Claim 34 wherein said mammal is a human.

36. The method of Claim 34 wherein said Sertoli cells are injected into the renal subcapsular space.

37. The method of Claim 34 wherein said Sertoli cells are injected into the subcutaneous facie.

38. The method of Claim 34 wherein said Sertoli cells are transplanted at a dosage ranging from 10^5 to 10^{10} cells.

39. The method of Claim 34 wherein said Sertoli cells are human, bovine or porcine.

40. A method of enhancing the recovery and proliferation of ex vivo cells comprising co-culturing said cells with Sertoli cells for a time and under conditions sufficient to achieve said enhanced recovery and proliferation.

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41. A pharmaceutical composition comprising Sertoli cells and cells that produce a biological factor and a pharmaceutically acceptable carrier.

42. The composition of Claim 41 wherein said biological factor is a hormone.

43. The composition of Claim 41 wherein said cells that produce a biological factor are pancreatic islet of Langerhans cells.

44. The composition of Claim 41 wherein said cells that produce said biological factor are cells that are transformed by a nucleic acid encoding said biological factor.

45. A pharmaceutical composition comprising Sertoli cells, pancreatic islet of Langerhans cells and a pharmaceutically acceptable carrier.

46. A pharmaceutical composition comprising Sertoli cells and a pharmaceutically acceptable carrier.

47. A compartmentalized kit adapted to receive a first container adapted to contain Sertoli cells and a second container adapted to contain cells that produce a biological factor that is absent or defective in a disease.

48. A compartmentalized kit adapted to receive a first container adapted to contain Sertoli cells and a second container adapted to contain pancreatic islet of Langerhans cells.

49. An article of manufacture comprising a packaging material and Sertoli cells contained within said packaging material, wherein said Sertoli cells are effective for creating an immunologically privileged site in a mammal, and wherein said packaging material contains a label that indicates that said Sertoli cells

can be used for creating an immunologically privileged site in a mammal.

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